



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/385,739	08/30/1999	WILLIAM FRANCIS WEBER	198-0046	9607

7590

09/12/2002

Bliss MCglynn PC  
2075 West Big Beaver Road  
Suite 600  
Troy, MI 48084

EXAMINER

FERRIS III, FRED O

ART UNIT

PAPER NUMBER

2123

DATE MAILED: 09/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/385,739

Applicant(s)

WEBER ET AL.

Examiner

Fred Ferris

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 August 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 January 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. *Claims 1-18 have been presented for examination. Claims 1-18 have been rejected by the examiner.*

### **Specification**

2. *The attempt to incorporate subject matter into this application by reference is improper. Specifically, page 3, line 25 of the specification makes reference to "U.S. Patent Application, SN\_\_\_\_\_ " (i.e. SN not given). Accordingly, the reference has not been considered by the examiner. Examiner will consider the reference once applicants have provided either a U.S. Patent Application serial number or attorney docket number.*

### **Double Patenting**

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. ***Claims 1-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 14 and 32 of U.S. Patent No. 6,096,086.***

*Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1, 14 and 32 of U.S. 6,096,086 are drawn to a computer method for designing an interior portion of an automotive vehicle (such as an **instrument panel**) that includes determining **input parameters, three dimensional coordinates, varying input parameters, orienting an occupant, selecting parameters from a library, and comparing/determining/modifying a design** based on **predetermined criteria** as are claims 1, 7, and 16 of the claimed invention.*

*It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to include the claimed instrument panel structure of the present invention as part of the computer method for designing the interior portion of an automotive vehicle since all automobiles have instrument panels in their interiors. Further, the computer aided method of selecting generic parameters, selecting parameter values, and determining parameter change (where spatial relationship meets a predetermined criteria) for generating an interior portion design as outlined in claims 1, 14, and 32 of U.S. 6,096,086 is obviously a parametric design process. Accordingly, the claimed inventions method of parametric design of an instrument panel support structure as outlined in independent claims 1, 7, and 16 are not considered by the examiner to be patentably distinct from those on claims 1, 14, and 32 of U.S. patent 6,096,086.*

***Claim Rejections - 35 USC § 102***

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. ***Claims 1, 7 and 16 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by U.S. Patent 6,110,216 issued to Weber et al.***

Regarding independent claims 1, 7, and 16: Weber teaches a computer based method for ***parametric design of portions of an automotive*** where input parameters ***using three dimensional (3-D) coordinates*** are used to ***generate*** (output) a ***design*** based on user or ***predetermined criteria***. (designing an instrument panel would be inherent as well as obvious) The method discloses ***selecting a structure*** from a ***stored library*** of generic ***objects*** and allows for the ***location of objects (including locating steering and occupant)*** within the design. The method also teaches ***selecting, verifying, and modifying parameter and predetermined conditions*** as part of the design process. The method further accepts feature based input information

Art Unit: 2123

*(predetermined criteria) that describes a particular geometry and permits design modification to generate an output design and packaging of automotive portions.*

*(Abstract, Summary of Invention (especially CL2-L17-19, 23-27, 41-44, 45), CL4- L1-63 (especially L33), CL7-L62-CL8-L55 (especially L32-34), Figs. 1-4, 17-23, CL9-L35-CL10-L2 (especially L49))*

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

***5. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,119,309 issued to Cavendish et al in view of U.S. Patent 4,882,692 issued to Saxton et al.***

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-6 are drawn to:

*Parametric design of vehicle instrument panel*

*Determining input parameter in 3-D coordinates*

*Generating/modifying a design based on predetermined criteria*

*Regarding claims 1-6: Cavendish teaches a method for computer design of **automotive vehicle panels** where input parameters **using three dimensional coordinates** are used to **generate** (output) a **panel design** based on user or **predetermined criteria**. (functional objectives and requirements) The Cavendish method further accepts feature based input information (predetermined criteria) that describes a particular geometry and permits design **modification** to **generate** an output design of automotive panels that can include instruments. (Abstract, Summary of Invention, CL1-L10-25, CL2-L25, CL2-L35-63, CL7-L17, CL8-L18-40, CL9-L37, CL12-L53-60, Figs. 2-8)*

*Cavendish mentions, but does not explicitly teach parametric design.*

*Saxton teaches a parametric design method which allows a computer to create, interpret, and relate modules for designing and directing the **production of a manufactured part** by creating an electronically stored image of the part which may be scaled and dimensioned. (Abstract, Summary of Invention, CL2-L53-65, CL4-L6-55, Figs. 5, 8, 51-57)*

*It would have been obvious to one having ordinary skill in the art at the time the claimed invention was made to modify the teachings Cavendish relating to a method for computer design of **automotive vehicle panels** where input parameters **using three dimensional coordinates** are used to **generate** (output) a **panel design** based on*

user or **predetermined criteria**, with the teachings of Saxton relating to a parametric design method which allows a computer to create, interpret, and relate modules for designing and directing the **production of a manufactured part** to realize a method of parametric design of an instrument panel support structure. An obvious motivation exists since, as referenced by prior art, the use of parametric design techniques improves the manufacturing efficiency and cost effectiveness of the design process.

Claims 7-15 are drawn to:

Parametric design of vehicle instrument panel  
Selecting a structure  
Orienting an occupant  
Locating steering  
Determining input in 3-D  
Generating/varying/comparing a input design parameters

Regarding claims 7-15: As previously mentioned, Cavendish teaches a method for computer design of **automotive vehicle panels** where input parameters **using three dimensional coordinates** are used to **generate** (output) a **panel design** based on user or **predetermined criteria**. (functional objectives and requirements) The Cavendish method also discloses **selecting a structure** from a **stored library** of generic objects and allows for the **location of objects** (**locating steering would be obvious**) within the design. The Cavendish method further accepts feature based input information (predetermined criteria) that describes a particular geometry and permits design **modification** to **generate** an output design of automotive panels that can include instruments. (Abstract, Summary of Invention, CL1-L10-25, CL2-L25, CL2-L35-63, CL7-L17, CL8-L18-40, CL9-L37, CL12-L53-60, CL 14-L4-25, Figs. 2-8)



*Cavendish mentions, but does not explicitly teach parametric design.*

*Saxton teaches a parametric design method which allows a computer to create, interpret, and relate modules for designing and directing the **production of a manufactured part** by creating an electronically stored image of the part which may be scaled and dimensioned. Saxton also discloses **selecting a structure** from a **stored library** of objects. (Abstract, Summary of Invention, CL2-L53-65, CL4-L6-55, Figs. 5, 8, 51-57)*

*It would have been obvious to one having ordinary skill in the art at the time the claimed invention was made to modify the teachings Cavendish relating to a method for computer design of **automotive vehicle panels** where input parameters **using three dimensional coordinates** are used to **generate** (output) a **panel design** based on user or **predetermined criteria**, with the teachings of Saxton relating to a parametric design method which allows a computer to create, interpret, and relate modules for designing and directing the **production of a manufactured part** to realize a method of parametric design of an instrument panel support structure. An obvious motivation exists since, as referenced by prior art, the use of parametric design techniques improves the manufacturing efficiency and cost effectiveness of the design process.*

Claims 16-18 are drawn to:

Parametric design of vehicle instrument panel

Selecting from a library

Orienting the occupant/steering

Selecting/verifying/modifying parameters/predetermined conditions

Generating design/packaging

Regarding claims 16-18: As previously mentioned, Cavendish teaches a method for computer design of **automotive vehicle panels** where input parameters **using three dimensional coordinates** are used to **generate** (output) a **panel design** based on user or **predetermined criteria**. (functional objectives and requirements) The Cavendish method also discloses selecting a structure from a stored library of generic objects and allows for the **location of objects (locating steering or an occupant would be obvious)** within the design. The Cavendish method further accepts feature based input information (predetermined criteria) that describes a particular geometry and permits design **modification to generate** an output design of automotive panels that can include instruments. (Abstract, Summary of Invention, CL1-L10-25, CL2-L25, CL2-L35-63, CL7-L17, CL8-L18-40, CL9-L37, CL12-L53-60, CL 14-L4-25, Figs. 2-8)

Cavendish mentions, but does not explicitly teach parametric design.

Saxton teaches a parametric design method which allows a computer to create, interpret, and relate modules for designing and directing the **production of a manufactured part** by creating an electronically stored image of the part which may be scaled and dimensioned. Saxton also discloses **selecting a structure** from a **stored library** of objects. (Abstract, Summary of Invention, CL2-L53-65, CL4-L6-55, Figs. 5, 8, 51-57)

It would have been obvious to one having ordinary skill in the art at the time the claimed invention was made to modify the teachings Cavendish relating to a method for computer design of **automotive vehicle panels** where input parameters **using three**

***dimensional coordinates** are used to **generate** (output) a **panel design** based on user or **predetermined criteria**, with the teachings of Saxton relating to a parametric design method which allows a computer to create, interpret, and relate modules for designing and directing the **production of a manufactured part** to realize a method of parametric design of an instrument panel support structure. An obvious motivation exists since, as referenced by prior art, the use of parametric design techniques improves the manufacturing efficiency and cost effectiveness of the design process.*

### **Conclusion**

6. *The prior art previously made of record and not relied upon is considered pertinent to applicant's disclosure, careful consideration should be given prior to applicant's response to this Office Action.*

*U.S. Patent 5,293,479 issued to Quintero et al teaches parametric design and manufacturing.*

*U.S. Patent 5,197,120 issued to Saxton et al teaches methods for generating parametric designs.*

*"Rapid: Prototyping Control Panel Interfaces" K. Freburger, OOPSLA Proceedings, ACM 0-89791-247-0/87/0010-0416, 1987 teaches control panel design.*

*"Interactive Graphics Package for Human Engineering and Layout of Vehicle Workspace", G. Rabideau, ACM Special Interest Group on Design Automation, 1976 teaches vehicle component design.*

Art Unit: 2123

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Ferris whose telephone number is 703-305-9670 and whose normal working hours are 8:30am to 5:00pm Monday to Friday.

Any inquiry of a general nature relating to the status of this application should be directed to the group receptionist whose telephone number is 703-305-3900.

The Official Fax Numbers are:

After-final	(703) 746-7238
Official	(703) 746-7239
Non-Official/Draft	(703) 746-7240

*Fred Ferris*, Patent Examiner  
Simulation and Emulation, Art Unit 2123  
U.S. Patent and Trademark Office  
Crystal Park 2, Room 2A22  
Crystal City, Virginia 22202  
Phone: (703) 305 - 9670  
FAX: (703) 305 - 7240  
Fred.Ferris@uspto.gov

*Cliff*  
*Wm. Thomas*  
*AU. 2123*  
*Sept. 6, 2002*

September 5, 2002